

## ABSTRACT

The present invention relates to an electric public transit system, comprising electric driven buses with a cassette battery set and bus-mounted control system, a charge station and a loading and unloading apparatus. When said bus needs change the cassette battery set, said loading and unloading apparatus takes said cassette battery set from said bus and then replace with a charged cassette battery set. Both said charge station and said loading and unloading apparatus are equipped with their control systems, respectively, which can intercommunicate with said bus-mounted control system. In the present invention, the cassette battery sets are charged during power consumption valleys of the power grid, and therefore, the transit system can save energy and benefit the environment. Additionally it is also fast and accurate for loading and unloading the cassette battery set in the system of the present invention, which can also guarantee the bus operating online continuously and greatly enhance the usage ratio of the bus.